

In the claims:

Please cancel claim 21, amend claims 13-20, and add claims 22-25.

## Claims 1-12. (Canceled)

Claim 13. (Currently amended) ~~A~~ Mmethod for differential diagnosis of autoimmune diseases of the GSE-type or associated with gluten sensitive enteropathy comprising taking a sample and testing the sample for antibodies against human tissue transglutaminase and at least one other transglutaminase molecule selected from FXIIIA, ~~TGK~~ TGk, TGx, ~~TgE~~ TGe and Band 4.2.

Claim 14. (Currently amended) The method of claim 13, ~~Method as claimed in 13~~, wherein the auto immune ~~disease's~~ disease is dermatitis herpetiformis, or morbus Duhring.

Claim 15. (Currently amended) The method of claim 13, ~~Method as claimed in claim 13~~, wherein the autoimmune disease is selected from a group consisting of the following diseases: AI haemolytic anaemia, AI thrombocytopenic purpura, AI thyroid diseases, atrophic gastritis – pernicious anaemia, Crohn's disease, colitis ulcerosa, Goodpasture syndrome, IgA nephropathy or IgA glomerulonephritis, myasthenia gravis, partial lipodystrophy, polymyositis, primary biliary cirrhosis, primary sclerosing cholangitis, progressive systemic sclerosis, recurrent pericarditis, relapsing polychondritis, rheumatoid arthritis, rheumatism, sarcoidosis, Sjögren's syndrome, SLE, splenic atrophy, type I (insulin-dependent) diabetes mellitus, diabetes mellitus of other types, Wegener granulomatosis, ulcerative colitis, vasculitis (both systemic and cutaneous), ~~or~~ and vitiligo.

Claim 16. (Currently amended) ~~Method as claimed in claim 13~~, The method of claim 13, wherein the autoimmune disease is associated with infertility or increased risk of ~~or~~ abortions or reduced fetal growth.

Claim 17. (Currently amended) ~~A~~ Comparative protein binding assay for differential diagnosis of autoimmune diseases comprising the detection of antibodies against transglutaminase, characterized in that the protein binding assay comprises at least ~~two~~ two different transglutaminase antigens selected from tissue transglutaminase (TGc), TGk, ~~Tge~~ TGe, TGx, FXIIIA and Band 4.2.

Claim 18. (Currently amended) ~~A~~ The comparative protein binding assay of claim 17, as claimed in claim 17, further comprising trasglutaminase from a different species.

Claim 19. (Currently amended) ~~Comparative~~ A comparative binding protein binding assay of claim 17, as claimed in any preceding claims 17 to 18 wherein the transglutaminase antigen is a recombinant fusion protein or fragment thereof.

Claim 20. (Currently Amended) ~~Comparative protein bindings assay as claimed in any preceding claims 17 to 19~~ A comparative protein binding assay of claim 17, wherein the binding assay is an immunoassay selected from RIA, EIA/ELISA, LiA and FiA.

Claim 21. (Canceled)

Claim 22. (New) The comparative binding protein binding assay of claim 18, wherein the transglutaminase antigen is a recombinant fusion protein or fragment thereof.

Claim 23. (New) The comparative protein binding assay of claim 18, wherein the binding assay is an immunoassay selected from RIA, EIA/ELISA, LiA and FiA.

Claim 24. (New) The comparative protein binding assay of claim 19, wherein the binding assay is an immunoassay selected from RIA, EIA/ELISA, LiA and FiA.

Claim 25. (New) A comparative protein binding assay of any preceding claims 17 to 20 and 22-25, wherein the binding assay is a sandwich-immunoassay selected from IRMA, IEMA/EUA, ILMA (immunoluminescence assay) and IFMA (immunofluorescence assay).